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CLAIMS

1. A method of signal processing which is used to separate from a signal registered using a measuring instrument that measures a dynamic phenomenon a signal associated with a static source in the measurement object, in which method the measurement object and the measuring instrument move with respect to one another, characterised in that the measurement object is movable intentionally and unlimitedly, and that

determining the movement of the measuring instrument and the measurement object with respect to one another based on the signals measured using the measuring instrument;

presenting the signal in the co-ordinates attached to the measurement object, whereby the signal produced by a static source is detected as a static signal; and

separating the aforementioned static signal from the measurement signal.

2. The method as defined in claim 1, characterised in that the movement of the measuring instrument and the measurement object is determined in real time when registering the measurement signal.

3. The method as defined in claim 1, characterised in that

modelling the movement of the measurement object as a movement of the measuring instrument around the measurement object; and

presenting the registered signal as elementary fields in a signal space basis whose basis vector coefficients have been attached to the co-ordinates of the measurement object based on the known geometry between the measurement object and the measuring instrument.

4. The method as defined in claim 3, characterised in that at least a portion of external interference fields is eliminated within the presentation of the elementary fields.

5. The method as defined in claim 3 or 4, characterised in that the elementary fields are calculated by means of spherical harmonic functions.

6. The method as defined in claim 1, characterised in that the determined movement is adapted by using the minimum norm estimate of the current distribution of the measurement object.

7. The method as defined in claim 1, characterised in that the DC signal is separated from the measurement signal by a high-pass filter.

8. The method as defined in claim 1, characterised in that

dividing the measurement signal into two periods of time;

separating the aforementioned static signal over either one of the periods of time;

calculating the difference between the original signal and the separated static signal over the entire period of time.

9. The method as defined in claim 1, characterised in that in conjunction with a neuromagnetic MEG measurement, the movement of the measuring instrument and the measurement object with respect to one another is achieved so that the person being monitored moves his or her intentionally.

10. The method as defined in claim 1, characterised in that

measuring the signal caused by the magnetic pieces attached to the measurement object, whose loca-

tion in the co-ordinates of the measurement object is known; and

determining the location of the measurement object in relation to the measuring instrument by means of the measurement signals.

11. The method as defined in claim 1 for reducing an interference caused by the movement of a static magnetisation in a biomagnetic signal, c h a r a c t e r i s e d in that the registered signal is high-pass filtered both prior to presenting the signal in the co-ordinates attached to the measurement object and after the presentation.